

WHAT IS CLAIMED IS:

1. A storage device provided with a file system for managing operations to write and read data file by file in concentrated accesses made by a plurality of client apparatuses to said storage device through a network, said storage device comprising:

a first storage means for storing a digital-watermark-embedding parameter for each file as part of file-management information;

a second storage means for storing file data;

a receiving means for receiving a request to write file data from any of said client apparatuses;

a processing means for embedding a digital watermark into each processing unit of file data to be written as requested by any of said client apparatuses; and

a file-system means for driving said processing means on the basis of said digital-watermark-embedding parameter provided in said file-management information for a specific file and storing said specific file's data including an embedded digital watermark into said second storage means.

2. A storage device according to claim 1, said storage device further comprising:

a buffer for storing data less than said processing unit; and

a means for recording information on data stored in said buffer as part of said file-management information.

3. A storage device according to claim 1, said storage device further comprising a third storage means for storing
5 a digital-watermark-embedding parameter common to all files, wherein said file-system means drives said processing means on the basis of said digital-watermark-embedding parameter common to all files instead of said digital-watermark-embedding parameter provided in said file-management
10 information for a specific file.

4. A storage device according to claim 1, wherein said file data includes video data.

5. A storage device provided with a file system for managing operations to write and read data file by file in
15 concentrated accesses made by a plurality of client apparatuses to said storage device through a network, said storage device comprising:

a first storage means for storing a digital-watermark-embedding parameter and a compression parameter,
20 which are provided for each file as part of file-management information;

a second storage means for storing file data;

a receiving means for receiving a request to write file data from any of said client apparatuses;

25 a first processing means for embedding a digital

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watermark into each first processing unit of file data to be written as requested by any of said client apparatuses;

a second processing means for compressing each second processing unit of said file data to be written as requested
5 by any of said client apparatuses; and

a file-system means;

wherein said file-system means includes a means for driving said first processing means on the basis of said digital-watermark-embedding parameter provided in said
10 file-management information for a specific file, a means for driving said second processing means on the basis of said compression parameter provided in said file-management information for said specific file, and a means for storing
15 said specific file's data including an embedded digital watermark into said second storage means after compressing said specific file's data including said embedded digital watermark.

6. A storage device according to claim 5, said storage device further comprising:

20 a buffer for storing data less than said first processing unit and less than said second processing unit; and
a means for recording information on data stored in said buffer as part of said file-management information.

7. A storage device according to claim 5, said storage
25 device further comprising a third storage means for storing

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a digital-watermark-embedding parameter and a compression parameter, which are common to all files, wherein said file-system means drives said first processing means and said second processing means on the basis of respectively the digital-watermark-embedding parameter and the compression parameter, which are common to all files, instead of said digital-watermark-embedding parameter and said compression parameter, which are provided in said file-management information for a specific file.

10 8. A storage device according to claim 5, wherein said file data includes video data.

9. A monitoring system including a storage device provided with a file system for managing operations to write and read data file by file in concentrated accesses made by a plurality of monitoring cameras to said storage device through a network, said storage device comprising:

a first storage means for storing a digital-watermark-embedding parameter for each file as part of file-management information;

20 a second storage means for storing video data as file data;

a receiving means for receiving a request to write file data from any of said monitoring cameras;

a processing means for embedding a digital watermark into each processing unit of file data to be written as

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requested by any of said monitoring cameras; and

a file-system means for driving said processing means
on the basis of said digital-watermark-embedding parameter
provided in said file-management information for a specific
5 file and storing said specific file's data including an
embedded digital watermark into said second storage means.

10. A monitoring system according to claim 9 wherein
said digital-watermark parameter includes camera-number
information and said processing means embeds said camera-
10 number information and information on a date/time into said
video data.

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